

MAXIMUM RATINGS (Design-Centre Values)Pentode Section

Plate voltage (without current)	550	volts
Plate voltage	250	volts
Plate dissipation	4	watts
Grid No. 2 voltage (without current)	550	volts
Grid No. 2 voltage	250	volts
Grid No. 2 dissipation	1.7	watts
Cathode current	40	mA
External grid No. 1 resistance:		
with cathode bias	2	megohms
with fixed bias	1	megohm
Heater-cathode voltage	200	volts
External heater-cathode resistance	20,000	ohms

Triode Section

Plate voltage (without current)	±550	volts
Plate voltage	±250	volts
Peak plate voltage (see note 1)	600	volts
Plate dissipation	1	watt
Cathode current	12	mA
External grid No. 1 resistance:		
with cathode bias	3	megohms
with fixed bias	1	megohm
Heater-cathode voltage	200	volts
External heater-cathode resistance	20,000	ohms

TYPICAL CHARACTERISTICSPentode Section

Plate voltage	170	200	220	volts
Grid No. 2 voltage	170	200	220	volts
Grid No. 1 voltage	-2.1	-2.9	-3.4	volts
Plate current	18	18	18	mA
Grid No. 2 current	3.0	3.0	3.0	mA
Mutual conductance	11,000	10,400	10,000	μmhos
Plate resistance				
(minimum)	0.1	0.13	0.15	megohm
Amplification factor				
(grid No. 2 to grid No. 1)	36	36	36	
Max. grid No. 1 voltage at				
grid No. 1 current = +0.3 μA	-1.3	-1.3	-1.3	volts

Triode Section

Plate voltage	200	volts
Grid voltage	-1.7	volts
Plate current	3	mA
Mutual conductance	4000	μmhos
Amplification factor	65	
Grid voltage at grid		
current = + 0.3 μA	-1.3	volts

TYPICAL OPERATING CONDITIONSPentode Video Amplifier

Plate supply voltage	170	200	220	volts
Grid No.2 voltage	170	200	220	volts
Plate load resistor	3000	3000	3000	ohms
Grid No.1 voltage	-2	-2.8	-3.3	volts
Plate current	18	18	18	mA
Grid No.2 current	3.2	3.1	3.1	mA
Mutual conductance	10,400	10,000	9700	μmhos

Pentode Audio Power Amplifier-Class A (Single Valve)

Plate supply voltage	200	250	volts
Grid No.2 supply voltage	200	250	volts
Cathode resistor	113	235	ohms
Zero-signal plate current	20	16.0	mA
Max.-signal plate current	18.5	15.0	mA
Zero-signal grid No.2 current	3.4	2.7	mA
Max.-signal grid No.2 current	5.4	4.3	mA
R.M.S. signal input voltage	1.59	1.44	volts
Plate load resistance	11,000	17,500	ohms
Power output	1.65	1.65	watts
Total harmonic distortion	10	10	%

Pentode Audio Power Amplifier-Class AB Push-Pull

(Two Valves)

Plate supply voltage	250	volts
Grid No.2 supply voltage	250	volts
Common cathode resistor	117	ohms
Zero-signal plate current	2x16	mA
Max.-signal plate current	2x18	mA
Zero-signal grid No.2 current	2x2.7	mA
Max.-signal grid No.2 current	2x4.7	mA
R.M.S. signal input voltage	3.5	volts
Plate load resistance	17,500	ohms
Power output	5.4	watts
Total harmonic distortion	4	%

NOTES

1. With plate current less than 0.1 mA.
Maximum voltage pulse duration 18% of a cycle
with a maximum of 18 μsec.